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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,360	10/28/1999	STEVEN W. TEPPLER	32801-151172	5832

26694 7590 01/15/2004

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EXAMINER

BETIT, JACOB F

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 01/15/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/429,360

Applicant(s)

TEPLER, STEVEN W.

Examiner

Jacob F. Betit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

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DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "800" has been used to designate both the motherboard (top of figure 8) and a device that is located on the motherboard (upper right of motherboard in figure 8). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "814" has been used to designate both a video controller (page 22, line 10) and a Super I/O chip (page 25, line 1). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "816" has been used to designate both 2MB of SGRAM (page 22, lines 14-15) and an Advanced Programmable Interrupt Controller (page 22, lines 24-25 and page 24, line 27). A proposed drawing correction or corrected drawings

are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Figure 9 has the reference sign 1075, which is not mentioned within the disclosed specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because the specification says that the PIIX4 (figure 8, reference number 820) is said to contain the real time clock (figure 8, reference number 830) (see page 24, lines 33-34). Reference number 820 does not contain Reference number 830 in figure 8 of the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. Figures 12(b), 12(c) and 12(d) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (see pages 4 and 6 of "Authentication Scheme Extensions to NTP"). See MPEP § 608.02(g). A proposed drawing correction

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or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

7. The arrangement of the disclosed application does not conform with 37 CFR 1.77(b).

The title is bolded; the section headings are underlined throughout the disclosed specification; and the section headings do not appear in capital letters. The title and section headings should not be underlined and/or **boldfaced**, and they should appear in capital letters. Appropriate corrections are required according to the guidelines provided below:

8. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).
"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37
CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A
"Sequence Listing" is required on paper if the application discloses a
nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if
the required "Sequence Listing" is not submitted as an electronic
document on compact disc).

9. The disclosure is objected to because of the following informalities:

The words "motherboard" and "baseboard" are both used to describe the board
that is referenced by reference number 800.

The "Fraud Protection means" in figure 7 should be noted by reference number
"560" not "760" which appears to note a mouse, but is not so identified.

The "Verification Means" in figure 7 should be noted by reference number "580"
not "780" which notes the monitor.

Reference number 1022 in figure 10 notes AD7. Line 20 of page 26 tells of the real time clock latching the address from AD0-AD6 yet denotes 1022 in the list of reference numbers that is given for AD0-AD6.

Appropriate correction is required.

Claim Objections

10. Claims 26, 27, and 32 are objected to because of the following informalities:

Claim 26 recites the limitation " subtracting said second delay time from said other moment in time to provide a second relative trusted time at which said message was received by the personal computer" on lines 9-10. Since the "other moment in time" is associated with "receiving... said message from said remote computer" (lines 4-5), subtracting the delay time from this moment in time would not give the receiving time. It would give the time at which the remote computer sent the message. For the purpose of examination, the examiner is making the assumption that the applicant meant "at which said message was sent by the personal computer" on line 10.

Claim 27 is further objected to as being dependant on the objected dependant claim 26.

Claim 32 states the limitations "third digest" and "third certificate" on lines 10 and 11 respectively. Because there is no claim on which this one depends which states a "second digest" or a "second certificate", it is unclear why the applicant would use the word "third" instead of the word "second". For the purpose of examination, the examiner is making the assumption that the applicant meant "second digest" and "second certificate" instead of "third digest" and "third certificate" on lines 10 and 11 respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-4, 6-10, 17-23, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (U.S. patent No. 5,136,643) in view of Blandford (U.S. patent No. 6,442,691 B1).

As to claim 1, Fischer teaches a personal computer system for maintaining a digital data file (see column 5, lines 22-59), comprising:

a personal computer having installed therein a trusted time source (see column

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3, lines 16-28, and see column 5, lines 25-32);

means for appending the date and the time retrieved from the trusted time source to the saved file (see column 6, lines 18-21, see lines 29-38, and see lines 51-52);

means for signing the saved file with the date and the time retrieved from the trusted time source appended thereto (see column 6, lines 41-58);

means for hashing the signed file to produce a digest (see column 5, lines 55-59);

means for signing the digest with a key to produce a certificate (see column 6, lines 41-45);

means for appending the certificate to the saved file (see column 6, lines 51-52).

Fischer does not teach means for saving the file at a moment in time; he does not teach means for retrieving from the trusted time source a date and a time corresponding to the moment in time; and he does not teach means for saving the file with the certificate appended thereto.

Blandford teaches means for saving the file at a moment in time (see figure 18); he teaches means for retrieving from the trusted time source a date and a time corresponding to the moment in time (see column 13, line 51 through column 14, line 1); and he teaches means for saving the file with the certificate appended thereto (see column 14, lines 1-13).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer to include means for saving the file at a moment in time; means for retrieving from the trusted time source a

date and a time corresponding to said moment in time; and means for saving the file with the certificate appended thereto.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer by the teachings of Blandford because means for saving the file at a moment in time; means for retrieving from the trusted time source a date and a time corresponding to said moment in time; and means for saving the file with the certificate appended thereto would allow the file to be recreated from a later modified version of the file using the trusted time and certificates appended to it (see Blandford, abstract).

As to claim 2, Fischer as modified, teaches further comprising means for verifying the authenticity of the file with the certificate appended thereto (see Fischer, column 2, lines 21-22).

As to claim 3, Fischer as modified, teaches wherein the verification means comprises means for signing the saved file with the date and the time retrieved from the trusted time source appended thereto with an ID (see Fischer, column 6, lines 51-61).

As to claim 4, Fischer as modified, teaches wherein the ID is selected from the group consisting of an ID corresponding to a user, an ID corresponding to a system used by the user, and an ID corresponding to an enterprise within which the user uses the personal computer system (see Fischer, column 6, lines 51-61).

As to claim 6, Fischer as modified, teaches wherein the trusted time source comprises:

a real time clock (see Fischer, column 3, lines 51-61); and
a battery coupled to and powering the real time clock (see Fischer, column 4, lines 51-64).

As to claim 7, Fischer as modified, teaches wherein the real time clock and the battery are installed on a motherboard of the personal computer (see Fischer, column 5, lines 28-29, where "installed" is read on "physically inserted into").

As to claim 8, Fischer as modified teaches, wherein the real time clock and the battery are installed on a baseboard of the personal computer (see Fischer, column 5, lines 28-29, where "installed" is read on "physically inserted into").

As to claim 9, Fischer as modified, teaches wherein the real time clock and the battery are installed on an expansion card adapted to be coupled to a motherboard of the personal computer (see Fischer, column 5, lines 28-32).

As to claim 10, Fischer as modified, teaches wherein the real time clock and the battery are installed on an expansion card adapted to be coupled to a baseboard of the personal computer (see Fischer, column 5, lines 28-32).

As to claim 17, Fischer teaches a method of maintaining a digital data file (see column 1, lines 9-14) in a personal computer (see column 5, lines 22-59), comprising:

- providing a trusted time source in the personal computer (see column 3, lines 16-28, and see column 5, lines 25-32);
- appending the date and the time retrieved from the trusted time source to the saved file (see column 6, lines 18-21, see lines 29-38, and see lines 51-52);
- signing the saved file with the date and the time retrieved from the trusted time source appended thereto (see column 6, lines 41-58);
- hashing the signed file to produce a digest (see column 5, lines 55-59);
- signing the digest with a key to produce a certificate (see column 6, lines 41-45);
- appending the certificate to the saved file (see column 6, lines 51-52).

Fischer does not teach saving the file at a moment in time; he does not teach retrieving from the trusted time source a date and a time corresponding to the moment in time; and he does not teach saving the file with the certificate appended thereto.

Blandford teaches saving the file at a moment in time (see figure 18); he teaches retrieving from the trusted time source a date and a time corresponding to the moment in time (see column 13, line 51 through column 14, line 1); and he teaches saving the file with the certificate appended thereto (see column 14, lines 1-13).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer to include saving the file at a moment in time; retrieving from the trusted time source a date and a time

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corresponding to the moment in time; and saving the file with the certificate appended thereto.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer by the teachings of Blandford because saving the file at a moment in time; retrieving from the trusted time source a date and a time corresponding to the moment in time; and saving the file with the certificate appended thereto would allow the file to be recreated from a later modified version of the file using the trusted time and certificates appended to it (see Blandford, abstract).

As to claim 18, Fischer as modified, teaches further comprising the step of providing tamper-evident means for labeling the trusted time source (see Fischer, column 3, lines 23-50).

As to claim 19, Fischer as modified, teaches wherein the moment in time corresponds to an access of the digital data file (see Fischer, figure 18, where it is inherent that saving the file requires access of the digital data file).

As to claim 20, Fischer as modified, teaches wherein the moment in time corresponds to a creation of the digital data file (see Fischer, figure 18, where it is well known in the art that files are often saved during creation).

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As to claim 21, Fischer as modified, teaches wherein the moment in time corresponds to a modification of the digital data file (see Fischer, figure 18, where it is well known in the art that some files such as databases are saved each time they are modified).

As to claim 22, Fischer as modified, teaches wherein the moment in time corresponds to a receipt of the digital data file (see Fischer, figure 18, where it is known in the art that a file is saved after it is received).

As to claim 23, Fischer as modified, teaches wherein the moment in time corresponds to a transmission of the digital data file (see Fischer, figure 18, where it is known in the art that a file is usually saved before it is transmitted).

As to claim 29, Fischer teaches a method of maintaining a first digital data file and a second digital data file in a personal computer (see column 1, lines 9-14, where "digital documents" refers to more than one data file), comprising:

providing a trusted time source in the personal computer (see column 3, lines 16-28, and see column 5, lines 25-32);

appending the date and the time retrieved from the trusted time source to the first saved file (see column 6, lines 18-21, see lines 29-38, and see lines 51-52);

signing the first saved file with the date and the time retrieved from the trusted time source appended thereto (see column 6, lines 41-58);

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hashing the signed first file to produce a first digest (see column 5, lines 55-59);
signing the first digest with a key to produce a first certificate (see column 6, lines 41-45);

appending the first certificate to the first saved file (see column 6, lines 51-52).

Fischer does not teach saving the first digital data file at a first moment in time; he does not teach retrieving from the trusted time source a date and a time corresponding to the first moment in time; and he does not teach saving the first saved file with the first certificate appended thereto.

Blandford teaches saving the first digital data file at a first moment in time (see figure 18); he teaches retrieving from the trusted time source a date and a time corresponding to the first moment in time (see column 13, line 51 through column 14, line 1); and he teaches saving the first saved file with the first certificate appended thereto (see column 14, lines 1-13).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer to include saving the first digital data file at a first moment in time; he does not teach retrieving from the trusted time source a date and a time corresponding to the first moment in time; and he does not teach saving the first saved file with the first certificate appended thereto.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer by the teachings of Blandford because saving the first digital data file at a first moment in time; he does not teach retrieving from the trusted time source a date and a time corresponding to the first moment in

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time; and he does not teach saving the first saved file with the first certificate appended thereto would allow the file to be recreated from a later modified version of the file using the trusted time and certificates appended to it (see Blandford, abstract).

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (U.S. patent No. 5,136,643) in view of Blandford (U.S. patent No. 6,442,691 B1) as applied to claims 1-4, 6-10, 17-23, and 29 above, and further in view of Wilson et al. (U.S. patent No. 6,047,282).

As to claim 5, Fischer as modified, still does not teach, wherein the user ID is selected from the group consisting of a plurality of characters identifying the user, first data representing an iris scan of the user, second data representing a retina scan of the user, third data representing a finger scan of the user, fourth data representing the user's hand geometry, fifth data representing the user's voice, sixth data representing the user's signature, and combinations of the plurality of characters, first, second, third, fourth, fifth, and sixth data.

Wilson et al. teaches wherein the user ID is selected from the group consisting of a plurality of characters identifying the user, first data representing an iris scan of the user, second data representing a retina scan of the user, third data representing a finger scan of the user, fourth data representing the user's hand geometry, fifth data representing the user's voice, sixth data representing the user's signature, and

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combinations of the plurality of characters, first, second, third, fourth, fifth, and sixth data (see column 8, lines 24-43).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include wherein the user ID is selected from the group consisting of a plurality of characters identifying the user, first data representing an iris scan of the user, second data representing a retina scan of the user, third data representing a finger scan of the user, fourth data representing the user's hand geometry, fifth data representing the user's voice, sixth data representing the user's signature, and combinations of the plurality of characters, first, second, third, fourth, fifth, and sixth data.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Wilson et al. because wherein the user ID is selected from the group consisting of a plurality of characters identifying the user, first data representing an iris scan of the user, second data representing a retina scan of the user, third data representing a finger scan of the user, fourth data representing the user's hand geometry, fifth data representing the user's voice, sixth data representing the user's signature, and combinations of the plurality of characters, first, second, third, fourth, fifth, and sixth data would make it difficult for unauthorized certified data entry (see Wilson et al., column 8, lines 35-43).

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14. Claims 11, 13-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (U.S. patent No. 5,136,643) in view of Blandford (U.S. patent No. 6,442,691 B1) as applied to claims 1-4, 6-10, 17-23, and 29 above, and further in view of Fischer (U.S. patent No. 5,422,953, herein after referred to as Fischer'953).

As to claim 11, Fischer as modified, still does not teach wherein the real time clock and the battery are installed on an external device adapted to be coupled to the personal computer.

Fischer '953, teaches wherein the real time clock and the battery are installed on an external device adapted to be coupled to the personal computer (see column 3, lines 7-24).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include wherein the real time clock and the battery are installed on an external device adapted to be coupled to the personal computer.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Fischer '953 because wherein the real time clock and the battery are installed on an external device adapted to be coupled to the personal computer would create a portable device that can easily be switched from one computer to another according to the computer that the user is currently using.

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As to claim 13, Fischer as modified, teaches wherein the external device comprises a "PCMCIA card" (see Fischer '953, column 3, lines 9-14, where PCMCIA card is read on "MCIA card").

As to claim 14, Fischer as modified, teaches wherein the external device comprises a smart card (see Fischer '953, column 3, lines 9-10).

As to claim 15, Fischer as modified, teaches wherein the external device comprises a removable computer-readable medium (see Fischer '953, column 3, lines 9-16).

As to claim 16, Fischer as modified, teaches wherein the removable computer-readable medium is selected from the group consisting of a magnetic hard disk, a floppy disk, an optical disk, a CD-ROM, a CD-R, a CD-RW, a disk compliant with DVD standards, a magneto-optical disk, a magnetic tape, a memory chip, a carrier wave used to carry computer readable electronic data, such as are used in transmitting and receiving an e-mail or in accessing a network, including the Internet, intranets, extranets, virtual private networks (VPN), local area networks (LAN), and wide area networks (WAN), and any other storage device used for storing data accessible by a computer (see Fischer '953, column 3, lines 9-16).

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15. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (U.S. patent No. 5,136,643) in view of Blandford (U.S. patent No. 6,442,691 B1) in view of Fischer (U.S. patent No. (5,422,953) as applied to claims 1-4, 6-11, 13-23, and 29 above, and further in view of Fiore (UK patent application No. GB 2,323,455).

As to claim 12, Fischer as modified, still does not teach wherein the external device comprises a dongle.

Fiore teaches a dongle that is used to set the system clock of a computer to assure year 2000 compliance (see abstract) in which he teaches wherein the external device comprises a dongle (see abstract).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include wherein the external device comprises a dongle.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Fiore because wherein the external device comprises a dongle would allow the external device to set the clock that is on most common motherboards (see Fiore, abstract).

16. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (U.S. patent No. 5,136,643) in view of Blandford (U.S. patent No. 6,442,691 B1) as applied to claims 1-4, 6-10, 17-23, and 29 above, further in view of Montville et al.

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(U.S. patent No. 6,356,937 B1), and in further view of Waclawsky (U.S. patent No. 6,449,255 B1).

As to claim 24, Fischer as modified, does not teach further comprising the steps of:

appending to an e-mail the saved file with the certificate appended thereto;
transmitting the e-mail, with the appended saved file having the certificate appended thereto, to a remote computer.

Montville et al. teaches appending to an e-mail the saved file with the certificate appended thereto (see column 26, lines 6-14); and transmitting the e-mail, with the appended saved file having the certificate appended thereto, to a remote computer (see column 26, lines 14-25).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include appending to an e-mail the saved file with the certificate appended thereto; and transmitting the e-mail, with the appended saved file having the certificate appended thereto, to a remote computer.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Montville et al. because appending to an e-mail the saved file with the certificate appended thereto; and transmitting the e-mail, with the appended saved file having the certificate appended thereto, to a remote computer would allow the user to have a

secure email service with authentication, concealment, integrity, and non-repudiation functions (see Montville et al., abstract).

Fischer as further modified, still does not teach determining a first delay time associated with the transmission step; he still does not teach adding the first delay time to the moment in time to provide a first relative trusted time at which the e-mail was received by the remote computer; and he still does not teach storing the first relative trusted time in the personal computer.

Waclawsky teaches determining a first delay time associated with the transmission step (see column 1, lines 35-41); he teaches adding the first delay time to the moment in time to provide a first relative trusted time at which the e-mail was received by the remote computer (see column 1, lines 42-53); and he teaches storing the first relative trusted time in the personal computer (see column 1, lines 42-44).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include determining a first delay time associated with the transmission step; adding the first delay time to the moment in time to provide a first relative trusted time at which the e-mail was received by the remote computer; and storing the first relative trusted time in the personal computer.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Waclawsky because determining a first delay time associated with the transmission step; adding the first delay time to the moment in time to provide a first relative trusted

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time at which the e-mail was received by the remote computer; and storing the first relative trusted time in the personal computer would allow the administrator to know if the QoS was acceptable (see Waclawsky, column 1, lines 42-53).

As to claim 25, Fischer as modified, teaches further comprising the step of appending a request for return receipt of a message indicating a remote time at which the e-mail was opened at the remote computer (it is well known in the art that requesting a return receipt of a message indicating a remote time at which the e-mail was opened at the remote computer; this feature is bundled in most email programs).

As to claim 26, Fischer as modified, teaches wherein the e-mail has been opened at the remote computer at the remote time, thereby, transmitting the message, further comprising the steps of:

receiving, at the personal computer at another moment in time, the message from the remote computer (it is well known in the art that emails can be received by remote computers);

determining a second delay time associated with the transmission of the message (see Waclawsky, column 1, lines 35-41);

retrieving from the trusted time source a date and a time corresponding to the other moment in time (it is well known in the art that the time that emails are received is saved with the incoming emails);

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subtracting the second delay time from the other moment in time to provide a second relative trusted time at which the message was received by the personal computer (see Waclawsky, column 1, lines 42-53); and

storing the second relative trusted time in the personal computer (see Waclawsky, column 1, lines 42-44).

17. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (U.S. patent No. 5,136,643) in view of Blandford (U.S. patent No. 6,442,691 B1) in view of Montville et al. (U.S. patent No. 6,356,937 B1) in view of Waclawsky (U.S. patent No. 6,449,255 B1) as applied to claims 24-26 above, and in further view of Mills ("Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6, and OSI").

As to claim 27, Fischer as modified, does not teach, further comprising the steps of:

determining a differential between the second relative trusted time stored in the personal computer and the remote time;

storing the differential in the personal computer; and

thereafter using the stored differential to approximate third and subsequent relative trusted times in communications with the remote computer.

Mills teaches determining a differential between the second relative trusted time stored in the personal computer and the remote time (see page 13, lines 6-20); he teaches storing the differential in the personal computer (see page 2, lines 3-10); and

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he teaches thereafter using the stored differential to approximate third and subsequent relative trusted times in communications with the remote computer (see page 2, lines 6-8).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include determining a differential between the second relative trusted time stored in the personal computer and the remote time; storing the differential in the personal computer; and thereafter using the stored differential to approximate third and subsequent relative trusted times in communications with the remote computer.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Mills because determining a differential between the second relative trusted time stored in the personal computer and the remote time; storing the differential in the personal computer; and thereafter using the stored differential to approximate third and subsequent relative trusted times in communications with the remote computer would allow time accuracies of 1-50ms (Mills, page 1, lines 8-10).

18. Claims 28, and 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (U.S. patent No. 5,136,643) in view of Blandford (U.S. patent No. 6,442,691 B1) as applied to claims 1-4, 6-10, 17-23, and 29 above, and further in view of Montville et al. (U.S. patent No. 6,356,937 B1).

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As to claim 28, Fischer as modified, teaches further comprising another digital data file (see Fischer, column 1, lines 9-14, where “digital documents” refers to more than one data file) and further comprising the steps of:

saving the other file at a second moment in time (see Blandford, figure 18);

retrieving from the trusted time source a date and a time corresponding to the second moment in time (see Blandford, column 13, line 51 through column 14, line 1);

appending the date and the time retrieved from the trusted time source to the other saved file (see Fischer, column 6, lines 18-21, see lines 29-38, and see lines 51-52);

signing the other saved file with the date and the time retrieved from the trusted time source appended thereto (see Fischer, column 6, lines 41-58);

hashing the signed other file to produce another digest (see Fischer, column 5, lines 55-59);

signing the other digest with a key to produce another certificate (see Fischer, column 6, lines 41-45);

appending the other certificate to the other saved file (see Fischer, column 6, lines 51-52);

saving the other file with the other certificate appended thereto (see Blandford, column 14, lines 1-13).

Fischer as modified, still does not teach appending the file with the certificate appended thereto to the other file with the other certificate appended thereto.

Montville et al. teaches appending the file with the certificate appended thereto to the other file with the other certificate appended thereto (see column 26, lines 6-14).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include appending the file with the certificate appended thereto to the other file with the other certificate appended thereto.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Montville et al. because appending the file with the certificate appended thereto to the other file with the other certificate appended thereto would allow the user to have a secure email service with authentication, concealment, integrity, and non-repudiation functions (see Montville et al., abstract).

As to claim 30, Fischer as modified, does not teach further comprising the step of appending the first saved file, with the first certificate appended thereto, to the second digital data file.

Montville et al. teaches further comprising the step of appending the first saved file, with the first certificate appended thereto, to the second digital data file (see column 26, lines 6-14).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, to include

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further comprising the step of appending the first saved file, with the first certificate appended thereto, to the second digital data file.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Fischer as modified, by the teachings of Montville et al. because further comprising the step of appending the first saved file, with the first certificate appended thereto, to the second digital data file would allow the user to have a secure email service with authentication, concealment, integrity, and non-repudiation functions (see Montville et al., abstract).

As to claim 31, Fischer as modified, teaches further comprising the steps of:
saving the second digital data file at a second moment in time (see Blandford, figure 18);

retrieving from the trusted time source a date and a time corresponding to the second moment in time (see Blandford, column 13, line 51 through column 14, line 1);

appending the date and the time retrieved from the trusted time source to the second saved file (see Fischer, column 6, lines 18-21, see lines 29-38, and see lines 51-52);

signing the second saved file with the date and the time retrieved from the trusted time source appended thereto (see Fischer, column 6, lines 41-58);

hashing the signed second file to produce a second digest (see Fischer, column 5, lines 55-59);

signing the second digest with a key to produce a second certificate (see Fischer, column 6, lines 41-45);

appending the second certificate to the second saved file (see Fischer, column 6, lines 51-52); and

saving the second saved file with the second certificate appended thereto (see Blandford, column 14, lines 1-13).

As to claim 32, Fischer as modified, teaches further comprising the steps of:

saving a combination of the first saved file with the first certificate appended thereto and the second digital data file at a second moment in time (see Montville et al., column 26, lines 6-25, where it is well known in the art the concept of saving drafts of email messages and the concept of saving the email message when it is transmitted);

retrieving from the trusted time source a date and a time corresponding to the second moment in time (see Blandford, column 13, line 51 through column 14, line 1);

appending the date and the time retrieved from the trusted time source to the combination (see Fischer, column 6, lines 18-21, see lines 29-38, and see lines 51-52);

signing the combination with the date and the time retrieved from the trusted time source appended thereto (see Fischer, column 6, lines 41-58);

hashing the signed combination to produce a second digest (see Fischer, column 5, lines 55-59);

signing the second digest with a key to produce a second certificate (see Fischer, column 6, lines 41-45);

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appending the second certificate to the combination (see Fischer, column 6, lines 51-52); and

saving the combination with the third certificate appended thereto (see Blandford, column 14, lines 1-13).

As to claim 33, Fischer as modified, teaches wherein the first saved file comprises an e-mail (see Montville et al., column 26, lines 6-14) and the second saved file comprises a document selected from the group consisting of a word processing document, a spreadsheet document, a database document, an HTML document, a Web page, and an image (see Fischer, column 5, lines 45-52, where it is known in the art that contracts are often made in HTML documents on Web pages and in word processing documents; it is also well known in the art that purchase orders are often made in databases and spreadsheets).

As to claim 34, Fischer as modified, teaches further comprising the step of transmitting the e-mail with the document appended thereto (see Montville et al., column 26, lines 14-25).

As to claim 35, Fischer as modified, teaches wherein the first saved file comprises a document selected from the group consisting of an e-mail, a word processing document, a spreadsheet document, a database document, an HTML document, a Web page, and an image (see Montville et al., column 26, lines 6-25).

Conclusion


19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Betit whose telephone number is (703) 305-3735. The examiner can normally be reached on Monday through Friday 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (703) 305-3830. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

jfb

January 5, 2004


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